

plastic. When an electric voltage is applied to the light-absorbing particle film via the conductive-coated surfaces, the suspended particles may line up in a straight line to all light to flow through. The light valve 71 thus may appear transparent. Once the electric voltage is removed, however, the suspended particles may move back into a random alignment to block the light, causing the light valve 71 to appear opaque.

[0048] By varying the voltage applied to the suspended particle device, the amount of light allowed to pass through the device may be varied, allowing the device to appear transparent, opaque, or any shade in between. For example, FIG. 2B illustrates the light valve 71 with a substantially maximum voltage applied to the light valve 71, allowing the light valve 71 to maintain a substantially transparent orientation and allowing the secondary display 73 to be viewable through the light valve 71. FIG. 2C illustrates the light valve 71 with approximately fifty percent (50%) of the maximum voltage applied, such that the light valve 71 may maintain a semi-opaque orientation, which still allows the textual subject matter and images of the secondary display 73 to be viewed. As illustrated in FIG. 3C, when the light valve 71 is in a semi-opaque configuration, the secondary display 73 may have a changed appearance. For example, the secondary display may have a changed color, contrast, brightness, or the like. Finally, FIG. 2D illustrates the light valve 71 with a substantially negligible voltage applied such that the curtain device maintains a substantially opaque orientation, which may effectively block the secondary display device 73 from being viewable.

[0049] It will be understood that the light valve 71 may be any physical shape and may have any number of light display attributes, including, for example, any number of supported colors, and any number of obtainable contrast and/or brightness settings. Similarly, it will be understood that while the light valve 71 is shown as a separate element from the secondary display 73, the light valve 71 may be integrated within the secondary display 73. Furthermore, while the light valve 71 and the secondary display 73 are illustrated as single elements, it will be understood that any number of light valves 71 and displays 73 may be utilized to create any number of display opportunities. Additionally, the light valve 71 may comprise any known or yet to be developed type of light valve, including, by way of example, a liquid crystal light valve or an electrochromic light valve. Still further, although the secondary display 73 is shown to be separate from the display unit 70, it should be understood that the secondary display could be generated by the display unit 70, i.e., the secondary display could be a small sub-portion of the display unit 70.

Gaming Unit Electronics

[0050] FIG. 3 is a block diagram of a number of components that may be incorporated in the gaming unit 20. Referring to FIG. 3, the gaming unit 20 may include a controller 100 that may comprise a program memory 102, a microcontroller or microprocessor (MP) 104, a random-access memory (RAM) 106 and an input/output (P/O) circuit 108, all of which may be interconnected via an address/data bus 110. It should be appreciated that although only one microprocessor 104 is shown, the controller 100 may include multiple microprocessors 104. Similarly, the memory of the controller 100 may include multiple RAMs

106 and multiple program memories 102. Although the I/O circuit 108 is shown as a single block, it should be appreciated that the I/O circuit 108 may include a number of different types of I/O circuits. The RAM(s) 104 and program memories 102 may be implemented as semiconductor memories, magnetically readable memories, and/or optically readable memories, for example.

[0051] Although the program memory 102 is shown in FIG. 3 as a read-only memory (ROM) 102, the program memory of the controller 100 may be a read/write or alterable memory, such as a hard disk. In the event a hard disk is used as a program memory, the address/data bus 110 shown schematically in FIG. 3 may comprise multiple address/data buses, which may be of different types, and there may be an I/O circuit disposed between the address/data buses.

[0052] FIG. 3 illustrates that the control panel 66, the coin acceptor 52, the bill acceptor 54, the card reader 58, the ticket reader/printer 56 the secondary display 73 and the light valve 71, may be operatively coupled to the I/O circuit 108, each component being so coupled by either a unidirectional or bidirectional, single-line or multiple-line data link, which may depend on the design of the component that is used. Additionally, the speaker(s) 62 may be operatively coupled to a sound circuit 112, that may comprise a voice- and sound-synthesis circuit or that may comprise a driver circuit. The sound-generating circuit 112 may be coupled to the I/O circuit 108.

[0053] The components 52, 54, 56, 58, 66, 71, 73, 112, as shown, may be connected to the I/O circuit 108 via a respective direct line or conductor. Different connection schemes could be used. For example, one or more of the components shown in FIG. 3 may be connected to the I/O circuit 108 via a common bus or other data link that is shared by a number of components. Furthermore, some of the components may be directly connected to the microprocessor 104 without passing through the I/O circuit 108.

[0054] FIG. 3A illustrates one example of the light valve 71. Referring to FIG. 3A, the light valve 71 may include a plurality of particles 120 suspended between two panes of glass or plastic 122. The particles 120 may be responsive to electrical charges. The panes 122 may be coated with a conductive material 124. The conductive material may be connected to an electrical voltage 126, which may be variable to increase or decrease the amount of electricity applied to the conductive material 124.

[0055] FIGS. 3B and 3C illustrate an example of the light valve 71 in operation. Referring to FIG. 3B, the electrical voltage 126 may be "OFF" causing the conductive material 124 to carry a negligible charge. The particles 120 may randomly disperse between the conductive material 124 absorbing light and causing the light valve 71 to appear opaque. As a result, the secondary display 73 may be hidden from sight.

[0056] Referring to FIG. 3C, the electrical voltage may be "ON" causing the conductive material 124 to carry an electrical charge. The particles 120 may align between the conductive material 124 in response to the electric charge. As the particles align, light may pass through the light valve 71, causing the light valve 71 to appear transparent, thereby revealing the secondary display 73.